# MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM



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\*\*ADVISORY - Important Information \*\*

### **2011PHADV019**

**TO:** All Academic, All CDC Role Groups, All Childcare, All City and County Health

Departments, All Healthcare, Lab Facilities, County EMA Directors, Maine Medical Association, Northern New England Poison Center, All Public Health,

EMS, All RRCs

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**SUBJECT:** Increase in Pertussis in Maine: Reminder to Check Vaccination Status

DATE: Monday, November 14, 2011

**TIME:** 12:00pm

PAGES: 5

**PRIORITY:** Medium

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#### Increase in Pertussis in Maine: Reminder to Check Vaccination Status

**Background:** Pertussis (whooping cough) continues to increase in Maine and in many regions of the United States. The majority of reported pertussis infections have occurred in Penobscot County, but sporadic infections have occurred throughout the state. As of November 10, 2011, 163 persons infected with pertussis were reported to Maine CDC, compared to 53 reported for the entire year in 2010. Among the 163 persons reported to have pertussis in 2011, 105 (64%) were residents of Penobscot County. Clusters of pertussis have been reported in schools, camps, sport teams and workplaces.

Pertussis is a highly communicable, vaccine-preventable respiratory disease that can last for many weeks. It is transmitted through direct contact with respiratory secretions of infected persons. Symptoms include cough, paroxysms, whoop, and posttussive vomiting. Pertussis can cause serious illness in infants, children and adults and can even be life-threatening, especially in infants

#### **Pertussis Vaccination**

The most effective way to prevent pertussis is through vaccination. There are different types of vaccines for pertussis. DTaP (diphtheria and tetanus toxoid and acellualr pertussis) is given to children younger than 7 years of age, and Tdap (tetanus toxoid, reduced diphtheria toxoid and acellular pertussis) is given to older children and adults. According to data from the 2010 National Immunization Survey, 86.6% of Maine children aged 19-35 months have received 4 or more doses of DtaP vaccine, and 63.2% of adolescents aged 13-17 years have received one or more doses of Tdap vaccine. Although these coverage levels are comparable to national statistics, additional efforts are needed to ensure all Maine children are protected. Clinicians should check the vaccine status of their patients to make sure they are up to date for their age. The table below contains information on who should be vaccinated with a pertussis-containing vaccine and when.

## **Protecting Infants from Pertussis**

Compared with older children and adults, infants aged <12 months have substantially higher rates of pertussis and the largest burden of pertussis-related deaths. The majority of pertussis cases, hospitalizations, and deaths occur in infants aged ≤2 months who are too young to be vaccinated. Since 2005, the Advisory Committee on Immunization Practices (ACIP) has recommended Tdap booster vaccines to unvaccinated postpartum mothers and other family members of newborn infants to protect infants from pertussis, a strategy referred to as cocooning. However, this strategy has proven to be difficult to implement. As a result, ACIP now recommends Tdap vaccination for pregnant women who previously have not received Tdap, preferably during the third or late second trimester (after 20 weeks' gestation). If not administered during pregnancy, Tdap should be administered immediately postpartum.

Table. Summary of DTaP and Tdap Vaccine Recommendations

Age/Status	Recommendations
Birth through 6 years	DTaP is routinely recommended at 2, 4, and 6 months, at 15 through 18 months, and at 4 through 6 years.
7 through 10 years	<ul> <li>Tdap is recommended for children ages 7 through 10 years who are not fully vaccinated (see note 1) against pertussis:</li> <li>Single dose of Tdap for those not fully vaccinated (see note 1) or</li> <li>If additional doses of tetanus and diphtheria toxoid-containing vaccines are needed, then children aged 7 through 10 years should be vaccinated according to the catch-up schedule, with Tdap preferred as the first dose.</li> </ul>
11 through 18 years	Tdap is routinely recommended as a single dose for those 11 through 18 years of age with preferred administration at 11 through 12 years of age.  If an adolescent was not fully vaccinated (see note 1) as a child, check the ACIP recommendations and catch-up schedule to determine what's indicated.  If adolescents (13 through 18 years) missed getting Tdap at 11 to 12 years of age, administer at the next patient encounter or sooner if adolescent will have close contact with infants.
19 through 64 years	Any adult 19 through 64 years of age who has not received a dose of Tdap should get one as soon as feasible. This Tdap can replace one of the 10-year Td booster doses. Tdap can be administered regardless of interval since the previous Td dose. Shorter intervals between Tdap and last Td may increase the risk of mild local reactogenicity but may be appropriate if your patient is at high risk for contracting pertussis, such as during an outbreak, or has close contact with infants.
65 years and older	Adults age 65 years and older who have not previously received a dose of Tdap and who have or anticipate having close contact with children younger than age 12 months (e.g., grandparents, other relatives, child care providers, and health care personnel), should receive a one-time dose to protect themselves and infants.

	Other adults 65 years and older who are not in contact with an infant and who have not previously received a dose of Tdap may receive a single dose of Tdap in place of a dose of Td. Administration may be especially important during a community outbreak.  Tdap can be administered regardless of interval since the previous Td dose. The safety of Tdap in persons 65 years and older is likely the same as in 18-64 year olds.
Pregnant women	Pregnant women who have not been previously vaccinated with Tdap should get one dose of Tdap during the third trimester or late second trimester. Tdap is recommended in the immediate postpartum period before discharge from hospital or birthing center for new mothers who were not previously vaccinated or whose vaccination status is unknown. By getting Tdap during pregnancy, maternal pertussis antibodies transfer to the newborn, likely providing protection against pertussis in early life, before the baby starts getting DTaP vaccines. Tdap will also protect the mother at time of delivery, making her less likely to transmit pertussis to her infant. DTaP or Tdap (depending on age) is recommended for all family members and caregivers of the infant – at least two weeks before coming into close contact with the infant.
Health care personnel (see note 2)  ACIP Provisional Recommendation	A single dose of Tdap is recommended for health care personnel who have not previously received Tdap as an adult and who have direct patient contact. Tdap vaccination can protect health care personnel against pertussis and help reduce transmission to others. Priority should be given to vaccinating those who have direct contact with babies younger than 12 months of age.  Tdap can be administered regardless of interval since the previous Td dose. However, shorter intervals between Tdap and last Td may increase the risk of mild local reactogenicity.
	(http://www.cdc.gov/vaccines/recs/provisional/downloads/use-of-Tdap-in-hcp.pdf)

**Note 1:** Fully vaccinated is defined as 5 doses of DTaP or 4 doses of DTaP if the fourth dose was administered on or after the fourth birthday.

**Note 2:** Health care personnel include but are not limited to physicians, other primary care providers, nurses, aides, respiratory therapists, radiology technicians, students (e.g., medical, nursing, and pharmaceutical), dentists, social workers, chaplains, volunteers, and dietary and clerical workers. For more detailed information, see <a href="Immunization of Health-Care Workers: Recommendations of the Advisory Committee for Immunization Practices (ACIP) and the Hospital Infection Control Practices Advisory Committee (HICPAC).</a>

Source: CDC. Pertussis: Summary of Vaccine Recommendations. Available at: <a href="http://www.cdc.gov/vaccines/vpd-vac/pertussis/recs-summary.htm">http://www.cdc.gov/vaccines/vpd-vac/pertussis/recs-summary.htm</a>.

### **For More Information:**

- General information on pertussis can be found on the Maine CDC website <a href="http://maine.gov/dhhs/boh/ddc/epi/vaccine/pertussis.shtml">http://maine.gov/dhhs/boh/ddc/epi/vaccine/pertussis.shtml</a> or the federal CDC website <a href="http://www.cdc.gov/pertussis/">http://www.cdc.gov/pertussis/</a>.
- For information about pertussis vaccine or vaccine schedules please contact the Maine Immunization program at <a href="https://www.immunizeme.org">www.immunizeme.org</a> or by calling 1-800-867-4755.
- Disease reporting or consultation is available by calling Maine CDC at 1-800-821-5821.